AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-344

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-344.01
ANS-344 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 344.01
>From AMSAT HQ SILVER SPRING, MD.
December 9, 2012
To All RADIO AMATEURS
BID: $ANS-344.01

FITSAT-1 Flashing LED Experiment Scheduled for December 12-13

On the 26th of November the first experiment of the flashing LEDs on the FITSAT-1 satellite took place. The LEDs were successfully observed in Kurashiki, Japan and Daejeon, Korea.

On December 7 Takushi Tanaka, JA6AVG updated the FITSAT-1 web page with this information, "As Christmas Eve is full moon, we [will] start flashing LEDs between 12-13 December."

The FITSAT-1 web page can be found at:
http://www.fit.ac.jp/~tanaka/fitsat.shtml

For the USA
---
12 December 2012
06:14:30 - 06:16:30 UTC

For Europe
---
13 December 2012
22:10:30 - 22:14:30 UTC

Please note that the schedule is subject to change. Binoculars may be necessary to ensure success in viewing the flashing LEDs. Additional prediction and tracking tools can be accessed at:
http://www.satflare.com/track.php?q=tsat#MAP

[ANS thanks Takushi Tanaka, JA6AVG for the above information]

V/U/Wx receive Amplifier available through AMSAT store

AMSAT-NA is pleased to announce an inexpensive, broadband VHF/UHF/WX satellite receive-only preamplifier.

Key features:

Ready to operate--not a kit! Fully assembled, tested, and installed in a metal enclosure with female BNC connectors on input and output.

It is based on the MAR 7 device, and covers 100 MHz to 500 MHz. This includes the137 MHz WX, 2M, and 70cm satellite bands.

Operates from +9-15V DC (a fresh 9V battery works great!). Perfect for portable operations using dual band hand-held Yagis like the ARROW, Cheap Yagi, etc. Just put it inline on the correct receive band for operations in either mode U/V or V/U. You won't believe what you've been missing!

Includes low power (about 5W) protection diode on the input for accidental transmissions into the input. (This preamp is not RF switched. It must be protected from inadvertent repeated or high power transmission RF using a relay or diplexer.)

Full details and schematic can be found in the November/December 2012 AMSAT Journal article by Mark Spencer, WA8SME, or downloaded from the item in the Hardware section of the AMSAT Store:

http://store.amsat.org/catalog/

The assembled and tested kit is priced at $50 USD plus shipping.

Proceeds from the sale of this item will help fund the AMSAT Fox Family of satellites!

This equipment was developed as part of the ARRL Education and Technology Program.

[ANS thanks Mark Hammond, N8MH for the above information]

AMSAT Office Closed December 6 thru 11

Martha reports that she will be out of the office beginning

Thursday, December 6th, and the office will remain closed on 7th,
10th and 11th.

[ANS thanks Martha for the above information]

CO6CBF and EA4CYQ Work Transatlantic via FO-29

On the morning of December 4, CO6CBF Hector Martinez in EL92sd,
worked EA4CYQ Juan Antonio in IM78cx.

Hector reported on the AMSAT-BB
"I had looked for intercontinental contacts before but it had been
very hard for me. Now, running my new donated satellite gear I am
able to work FO-29 until 0 degree in any direction. It was my third
attempt and was successful!

Cubans cannot operate on AO-7 mode B due to a 432MHz restriction in
our country, so we have only a few chances on FO-29 every five months
when the satellite is getting close to apogee. Juan Antonio and I had
a two minutes window and we had enough time to interchange reports,
grids and greetings.

The contact is included in John Papay's recording of the pass:
http://www.papays.com/sat/FO-29_04Dec2012_140930z.mp3

Thanks very much to Juan Antonio EA4CYQ for the great contact and to
John K8YSE for look for us and record the contact!

Right Now, FO-29 has a big footprint in the morning passes. Please,
if you are into the footprint and want to try a long contact, just
drop me an email directly. I will try until have a contact with you."

[ANS thanks Hector for the above information]

VE to ES DX via AO-7 Mode B

Randy Morden, VE6RGU, reported on the AMSAT-BB December 6,
"I was quite surprised (Tuesday) to work Neil Viskov, ES6DO in
Estonia just before 18:00Z on AO-7 mode B.

I was listening to that pass with the hopes of working a few UK
stations I heard a few days ago, and was just about to shut the rig
down at the end of the pass, when I heard a CW station calling CQ.
At first I though it was an Irish station with an EI prefix, but two
dits turned out to be three - ES rather than EI! With less than one
minute to make the contact on that pass, it all worked out with a new
grid and new DX in my log, and Neil's first VE QSO. Many thanks
Neil!"

[ANS thanks Randy for the above information]

U.S ARISS Proposal is Live Online

NASA is now accepting proposals from U.S. schools, museums, science centers and community youth organizations, individually or working together, to host an Amateur Radio on the International Space Station contact between May 1, 2013 and November 1, 2013.

To maximize these radio contact opportunities, NASA is looking for organizations that will draw large numbers of participants and integrate the contact into a well-developed education plan. Radio contacts are approximately 10 minutes in length. Proposals are due January 28, 2013.

The NASA ARISS page is live! Spread the word. U.S organizations can now access the planning guide and proposal form online at: http://www.nasa.gov/education/tfs/ariss. Dates and times of the online information sessions are also on the website.

Interested parties should visit the website to obtain complete information including how the technology works, what is expected of the host organization and how to submit the proposal form.

[ANS thanks Trinesha M. Dixon, Teaching From Space Education Specialist at the NASA Johnson Space Center for the above information]

California K6RPT-12 144.390 FM APRS Balloon Crosses Atlantic

Amateur radio stations from the UK to the Azores were listening for the transatlantic balloon K6RPT-12 on 144.390 MHz FM.

As of Tuesday 2230 UT no reports of the balloon had been received since it left radio range of Newfoundland at 0350 UT. The last APRS reports indicated it was starting to drift south and slow down. When it left the USA it was traveling at over 300 km an hour, however, it may well have slowed considerably since then possibly to as little as 90 kmh.

The payload is designed for over 60 hours of flight.

The K6RPT-12 144.390 MHz APRS balloon successfully crossed the Atllantic and landed in Morocco on Wednesday morning.

After its epic journey across the Atlantic the APRS signals were picked up by Spanish stations. It was last heard at 2012-12-05 09:22:31z descending rapidly, indicating that the balloon had burst.

The last recorded position was 34°25.75' N 3°58.96' W. It is believed
there are less than 150 radio amateurs in Morocco and no known APRS stations, so the balloon may never be recovered.

See the K6RPT-12 APRS Track at
http://aprs.fi/#!call=K6RPT-12&timerange=4800

California Near Space Project
http://www.californianearspaceproject.com/

Twitter http://twitter.com/k6rpt

[ANS thanks Southgate, the California Near Space Project and JoAnne Maenpaa for the
above information]

FreeDV Ham Radio Digital Voice Software

FreeDV is an application for Windows and Linux that allows any HF SSB radio to be used for digital voice mode wita bandwidth of just 1.1 kHz. Speech is compressed down to 1400 bit/s then modulated onto a 1100 Hz wide QPSK signal which is sent to the Mic input of a SSB radio. On receive, the signal is received by the SSB radio, then demodulated and decoded by FreeDV.

Features:
+ Codec 2 voice coder and FDMDV modem
+ 50 baud 14 QPSK voice data
+ 1 Center BPSK carrier with 2x power for fast and robust synchronization.
+ 1.125 kHz spectrum bandwidth (half SSB) with 75 Hz carrier spacing
+ 1400 bit/s data rate with 1375 bit/s open source Codec 2 voice coding and 25 bit/s text for call sign ID
+ No interleaving in time or FEC philosophy resulting in low latency, fast synchronization and quick recovery from fades.
+ 44.1 or 48kHz sample rate sound card compatible

FreeDV, the new HF digital audio program for Radio Amateurs:
http://www.youtube.com/watch?v=yn0NEcNHs&feature=player_embedded

Watch when it's switched to analog SSB. The SSB bandwidth is about 3 times that of the digital audio. Also note the diagonal black streaks across the waterfall display. That's fading, probably from two reflections arriving out of phase. The ID on the bottom is coming in during the silent periods between words.

This software is Open Source, and uses Codec2. This Codec was presented by Bruce Robertson, VE9QRP at the 2012 AMSAT Space Symposium in Orlando, Florida.

See http://freedv.org/

[ANS thanks Southgate and FreeDV for the above information]

N0D – Special Event Station for the End of the World
Expands to the Final Frontier!

Houston, Texas December 4, 2012: According to one of the three Mayan Calendars, the End of the world will occur on Dec 21, 2012. To celebrate this literally once in a lifetime event, Special Event Station N0D (Now Zero Days) will be activated for the period December 15, 2012 through December 20, 2012. December 21, the day of destruction, we will be on the air as long as possible. December 22nd is a little iffy right now.

After all, it is the end of the world, so why not include the Final Frontier? In celebration, experienced satellite operators Allen Mattis, N5AFV, and Andy MacAllister, W5ACM, who are members of the N0D team, will be working available satellite passes beginning December 15th, 2012, through the end of the world and possibly beyond until December 22nd. The team will be using the Official Doomsday call sign, N0D.

In addition, the South Texas Balloon Launch Team will launch the Doomsday Balloon, BLT-32 To the End of the World and Float, to prepare the world for its demise! The launch is scheduled for Saturday Dec 15th at 4 PM from Covey Trails Airport in Fulshear, Texas. BLT-32 is designed as a "floater" with hopes that it will reach Europe before the end of the world. APRS telemetry and beacons on the balloon will also be using the Official Doomsday call sign, N0D. Details about the Doomsday balloon are available at http://www.w5acm.net/b32.html.

N0D will also be active on the HF bands throughout the event. Further information is available at www.nowzerodays.com. You may register on the website to become an official Doomsday station. Over 575 stations have already done so. QSL information for N0D is with SASE via KK5W but better wait untill after Doomsday, if we are still around.

NO Backup Date " It"s all or NOTHING!

[ANS thanks Allen N5AFV for the above information]

AMSAT SKN ON OSCAR 2013 IN MEMORY OF W1BIH/PJ9JT

You are cordially invited to participate in Straight Key Night on OSCAR 2013, conducted by AMSAT for all radio amateurs throughout the world. This year's event is dedicated to the memory of John Thompson, W1BIH/PJ9JT, who passed away in 2012, aged 96. Although known primarily as an HF DXer and contester, John was also active on OSCAR, mostly on CW.

As always, SKN on OSCAR is simple and informal. Just operate CW through one or more satellites on 1 January 2013 (0000 to 2400 UTC), using a straight hand key. There is no need to send in a log, but all participants are encouraged to nominate someone they worked for Best Fist. Your nominee need not have the best fist of anyone you heard, only of those you worked. Send your nomination to w2rs at amsat.org. A list of those nominated will appear in ANS in early February.

[ANS thanks Ray Soifer for the above information]

Watch and Listen for the Geminid Meteor Shower This Week

The Geminid Meteor Shower is the grand finale of astronomical events in 2012 and is usually the most reliable and prolific of the annual meteor showers.

This year we are in for a special treat as the Moon will be absent when the Geminids are at their peak on the evening of the 12th/13th of December. This means that the sky should be at its darkest when the shower is expected, and many more of the fainter meteors will be visible.

Meteor pings can be heard via internet streaming as the Air Force Space Surveillance Radar, scanning the skies above Texas, creates the "radar fence". When a meteor or satellite passes over the fac-ility--ping!--there is an echo. This live audio feed can be found at: http://spaceweatherradio.com/

[ANS thanks UniverseToday.com and SpaceWeatherRadio.com for the above information]

SkyCube: The Satellite
http://www.southernstars.com/skycube/satellite.html

SkyCube: a day in the life
http://tinyurl.com/a8xro6z

SkyCube uses Kickstarter for Funding
http://www.uk.amsat.org/?p=55

[ANS thanks Southgate ARC for the above information]

Space Station to reposition for science

The International Space Station will reposition itself for a better view of the sun, the first-ever attitude change for scientific reasons alone, officials say.

http://tinyurl.com/bsw4wg2

[ANS thanks Space Travel for the above information]

AMATEUR RADIO HIGH ALTITUDE BALLOONING -- MISSION ANNOUNCEMENTS

http://arhab.org/hab_launch_list.php

[ANS thanks AMATEUR RADIO HIGH ALTITUDE BALLOONING for the above information]

Jose Luis Pe?a Sanchez EC4TR Seeks North American Contacts from IN80er in Spain

Luis, EC4TR, is looking for North American stations with whom to set up satellite schedules. His grid in IN80er. Email him at his

qrz.com email address if you would like to contact him. FO-29 is over 1300km high during morning passes over the Atlantic now. AO-7 is always around 1450km and is in Mode B on odd days during December.

[ANS thanks John Papay K8YSE for the above information]

More CubeSat News

The UK Space Agency will be running a free CubeSat Community Workshop at Milton Keynes on January 22 that will include discussion of plans for UKube-2.

See http://www.uk.amsat.org/?p782

Also on the AMSAT-UK site:

Pictures released of UKube-1 CubeSat
http://www.uk.amsat.org/?p786

Australian Radio Ham�s Spacecraft Missions
http://www.uk.amsat.org/?p745

[ANS thanks Trevor M5AKA for the above information]

/EX

Please share you copy with an educator near you.

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
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